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APPLIED ENVIRONMENTAL CONSULTANTS, INC.  
DEPARTMENT OF ENVIRONMENTAL QUALITY  
STATE A Q PROGRAM

Date: December 7, 2007

To: Air Quality Program Office	Project: Chemical Lime Company, Lime Railcar Loadout Facility - Bancroft, Idaho		
Application Processing Idaho Department of Environmental Quality 1410 N. Hilton Boise, Idaho 83706	From: Herbert Verville		
	# Of copies enclosed: 2		
	Delivery via: UPS		
Purchase Order #	Document Enclosed is:		Final
	AEC Project # 598		

## Message:

Enclosed you will find 2 copies of the following:

**APPLICATION TO MODIFY AN EXISTING SOURCE  
UNDER PERMIT TO CONSTRUCT #029-00028  
CHEMICAL LIME COMPANY  
LIME RAILCAR LOADOUT FACILITY  
BANCROFT, IDAHO  
December 5, 2007**

We have also enclosed our check # 3674 in the amount of \$1,000.00 to cover the associated filing fees.

Should you have any questions during the processing of this application, please give me a call at (480)829-0457.

Sincerely,

Herbert Verville  
Senior Scientist  
Ds

This document was also transmitted to:

Mr. Ed Barry (2 copies)  
Western Environmental Manager  
Chemical Lime Company  
Raintree Corporate Center 1  
15333 N. Pima Rd. #200  
Scottsdale, Arizona 85260

Via:

*Note: U.S., State and County regulatory agencies require timely submittal of many reports and documents.  
Please review your requirements to determine submittal requirements (if any) of these documents.*

Idaho Dept. of Environmental Quality

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STATE OF IDAHO

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DEPARTMENT OF ENVIRONMENTAL QUALITY  
STATE OF IDAHO

**APPLICATION TO MODIFY AN EXISTING SOURCE  
UNDER PERMIT TO CONSTRUCT #029-00028  
CHEMICAL LIME COMPANY  
LIME RAILCAR LOADOUT FACILITY  
BANCROFT, IDAHO**

December 5, 2007

Submitted to:

Air Quality Program Office – Application Processing  
Idaho Department of Environmental Quality  
1410 North Hilton  
Boise, Idaho 83706

Submitted by:

Chemical Lime Company  
1880 Tenmile Pass Road, P.O. Box 88  
Bancroft, Idaho 83217

Prepared by:

Applied Environmental Consultants, Inc.  
1553 West Elna Rae Street, Suite 101  
Tempe, Arizona 85281



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Cover Sheet **Form CS**  
**PERMIT TO CONSTRUCT APPLICATION**

Revision 3  
04/03/07

Please see instructions on page 2 before filling out the form.

**COMPANY NAME, FACILITY NAME, AND FACILITY ID NUMBER**

1. Company Name Chemical Lime Company

2. Facility Name Lime Railcar Loadout Facility 3. Facility ID No. P-990029

4. Brief Project Description - One sentence or less Modify Railcar Unloading Process

**PERMIT APPLICATION TYPE**

5. ☐ New Facility ☐ New Source at Existing Facility ☐ Unpermitted Existing Source  
☒ Modify Existing Source: Permit No.: 029-00028 Date Issued: 07/06/99  
☐ Required by Enforcement Action: Case No.: \_\_\_\_\_
6. ☒ Minor PTC ☐ Major PTC

**FORMS INCLUDED**

Included	N/A	Forms	DEQ Verify
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form GI – Facility Information	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form EU0 – Emissions Units General	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form EU1 - Industrial Engine Information Please Specify number of forms attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form EU2 - Nonmetallic Mineral Processing Plants Please Specify number of forms attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form EU3 - Spray Paint Booth Information Please Specify number of forms attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form EU4 - Cooling Tower Information Please Specify number of forms attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form EU5 – Boiler Information Please Specify number of forms attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form HMAP – Hot Mix Asphalt Plant Please Specify number of forms attached: _____	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form CBP - Concrete Batch Plant Please Specify number of forms attached: _____	<input type="checkbox"/>
<input checked="" type="checkbox"/>	<input type="checkbox"/>	Form BCE - Baghouses Control Equipment	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form SCE - Scrubbers Control Equipment	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Forms EI-CP1 - EI-CP4 - Emissions Inventory– criteria pollutants (Excel workbook, all 4 worksheets)	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	PP – Plot Plan	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Forms MI1 – MI4 – Modeling (Excel workbook, all 4 worksheets)	<input type="checkbox"/>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Form FRA – Federal Regulation Applicability	<input type="checkbox"/>

**DEQ USE ONLY**

Date Received

Project Number

Payment / Fees Included?

Yes ☐ No ☐

Check Number



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# General Information Form GI PERMIT TO CONSTRUCT APPLICATION

Revision 3  
03/26/07

Please see instructions on page before filling out the form.

All information is required. If information is missing, the application will not be processed.

## IDENTIFICATION

1. Company Name	Chemical Lime Company
2. Facility Name (if different than #1)	Lime Railcar Loadout Facility
3. Facility I.D. No.	P-990029
4. Brief Project Description:	Modify Railcar Unloading Process (See Attachment A)


## FACILITY INFORMATION

5. Owned/operated by: (√ if applicable)	<input type="checkbox"/> Federal government <input type="checkbox"/> County government <input type="checkbox"/> State government <input type="checkbox"/> City government
6. Primary Facility Permit Contact Person/Title	Ray Cawthorne / Terminal Manager
7. Telephone Number And Email Address	(209) 982-4112 Ray.Cawthorne@Chemicallime.com
8. Alternate Facility Contact Person/Title	
9. Telephone Number and Email Address	
10. Address to which permit should be sent	1880 Tenmile Pass Road, P.O. Box 88
11. City/State/Zip	Bancroft, Idaho 83217
12. Equipment Location Address (if different than #10)	
13. City/State/Zip	
14. Is the Equipment Portable?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
15. SIC Code(s) and NAISC Code	Primary SIC: <b>3274</b> Secondary SIC (if any):    NAICS: <b>327410</b>
16. Brief Business Description and Principal Product	Transfer of lime product from trucks to railcars with intermediate bin storage and direct pneumatic transfer of lime and hydrate from railcars to trucks.
17. Identify any adjacent or contiguous facility that this company owns and/or operates	N/A

## PERMIT APPLICATION TYPE

18. Specify Reason for Application	<input type="checkbox"/> New Facility <input type="checkbox"/> New Source at Existing Facility <input type="checkbox"/> Unpermitted Existing Source <input checked="" type="checkbox"/> Modify Existing Source: Permit No.: <u>029-00028</u> Date Issued: <u>07/06/99</u> <input checked="" type="checkbox"/> Permit Revision <input type="checkbox"/> Required by Enforcement Action: Case No.: _____
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## CERTIFICATION

IN ACCORDANCE WITH IDAPA 58.01.01.123 (RULES FOR THE CONTROL OF AIR POLLUTION IN IDAHO), I CERTIFY BASED ON INFORMATION AND BELIEF FORMED AFTER REASONABLE INQUIRY, THE STATEMENTS AND INFORMATION IN THE DOCUMENT ARE TRUE, ACCURATE, AND COMPLETE.	
19. Responsible Official's Name/Title	Ray Cawthorne / Terminal Manager
20. RESPONSIBLE OFFICIAL SIGNATURE	 Date: <u>12/5/2007</u>
21. <input checked="" type="checkbox"/> Check here to indicate you would like to review a draft permit prior to final issuance.	



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# PERMIT TO CONSTRUCT APPLICATION

Revision 3  
03/26/07

Please see instructions on page before filling out the form.

All information is required. If information is missing, the application will not be processed.

## IDENTIFICATION

1. Company Name	Chemical Lime Company
2. Facility Name (if different than #1)	Lime Railcar Loadout Facility
3. Facility I.D. No.	P-990029
4. Brief Project Description:	Modify Railcar Unloading Process (See Attachment A)

## FACILITY INFORMATION

5. Owned/operated by: (√ if applicable)	<input type="checkbox"/> Federal government <input type="checkbox"/> County government <input type="checkbox"/> State government <input type="checkbox"/> City government
6. Primary Facility Permit Contact Person/Title	Ray Cawthorne / Terminal Manager
7. Telephone Number And Email Address	(209) 982-4112 Ray.Cawthorne@Chemicallime.com
8. Alternate Facility Contact Person/Title	
9. Telephone Number and Email Address	
10. Address to which permit should be sent	1880 Tenmile Pass Road, P.O. Box 88
11. City/State/Zip	Bancroft, Idaho 83217
12. Equipment Location Address (if different than #10)	
13. City/State/Zip	
14. Is the Equipment Portable?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
15. SIC Code(s) and NAISC Code	Primary SIC: 3274    Secondary SIC (if any):    NAICS: 327410
16. Brief Business Description and Principal Product	Transfer of lime product from trucks to railcars with intermediate bin storage and direct pneumatic transfer of lime and hydrate from railcars to trucks.
17. Identify any adjacent or contiguous facility that this company owns and/or operates	N/A

## PERMIT APPLICATION TYPE

18. Specify Reason for Application	<input type="checkbox"/> New Facility <input type="checkbox"/> New Source at Existing Facility <input type="checkbox"/> Unpermitted Existing Source
	<input checked="" type="checkbox"/> Modify Existing Source: Permit No.: 029-00028    Date Issued: 07/06/99
	<input checked="" type="checkbox"/> Permit Revision
	<input type="checkbox"/> Required by Enforcement Action: Case No.: _____

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19. Responsible Official's Name/Title	Ray Cawthorne / Terminal Manager	
20. RESPONSIBLE OFFICIAL SIGNATURE		Date: 12/05/07
21. <input checked="" type="checkbox"/> Check here to indicate you would like to review a draft permit prior to final issuance.		



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# PERMIT TO CONSTRUCT APPLICATION

Revision 3  
03/27/07

Please see instructions on page before filling out the form.

## IDENTIFICATION

Company Name: Chemical Lime Company	Facility Name: Lime Railcar Loadout Facility	Facility ID No: P-990029
Brief Project Description:	Modify Railcar Offloading Process (See Attachment A)	

## EMISSIONS UNIT (PROCESS) IDENTIFICATION & DESCRIPTION

1. Emissions Unit (EU) Name:	PNEUMATIC TRANSFER EQUIPMENT (SEE ATTACHMENT A)		
2. EU ID Number:	N/A		
3. EU Type:	<input type="checkbox"/> New Source <input type="checkbox"/> Unpermitted Existing Source <input checked="" type="checkbox"/> Modification to a Permitted Source -- Previous Permit #:029-00028 Date Issued: 07/06/99		
4. Manufacturer:	N/A		
5. Model:	N/A		
6. Maximum Capacity:	20 TONS PER HOUR		
7. Date of Construction:	N/A		
8. Date of Modification (if any)	FOLLOWING ISSUANCE OF PTC FOR THIS APPLICATION		
9. Is this a Controlled Emission Unit?	<input type="checkbox"/> No <input checked="" type="checkbox"/> Yes If Yes, complete the following section. If No, go to line 18.		

## EMISSIONS CONTROL EQUIPMENT

10. Control Equipment Name and ID:	Baghouse DC-953 (See Attachment A)					
11. Date of Installation:	Existing	12. Date of Modification (if any):	N/A			
13. Manufacturer and Model Number:	Mikropul Model 156S-10PRH					
14. ID(s) of Emission Unit Controlled:	Pneumatic Transfer Equipment (See Attachment A)					
15. Is operating schedule different than emission units(s) involved?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No					
16. Does the manufacturer guarantee the control efficiency of the control equipment?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If Yes, attach and label manufacturer guarantee)					
Control Efficiency	Pollutant Controlled					
	PM	PM10	SO <sub>2</sub>	NO <sub>x</sub>	VOC	CO
	99.5%	99.5%	---	---	---	---

17. If manufacturer's data is not available, attach a separate sheet of paper to provide the control equipment design specifications and performance data to support the above mentioned control efficiency. AP-42, Table B.2-3

## EMISSION UNIT OPERATING SCHEDULE (hours/day, hours/year, or other)

18. Actual Operation	VARIABLE
19. Maximum Operation	8760 HOURS/YEAR

## REQUESTED LIMITS

20. Are you requesting any permit limits?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No (If Yes, check all that apply below)
<input type="checkbox"/> Operation Hour Limit(s):	
<input type="checkbox"/> Production Limit(s):	
<input type="checkbox"/> Material Usage Limit(s):	
<input type="checkbox"/> Limits Based on Stack Testing	Please attach all relevant stack testing summary reports
<input type="checkbox"/> Other:	
21. Rationale for Requesting the Limit(s):	

# PERMIT TO CONSTRUCT APPLICATION

Revision 3  
04/02/07

Please see instructions on page **Error! Bookmark not defined.** before filling out the form.

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**ATTACHMENT A**  
**DESCRIPTION OF PROPOSED MODIFICATION**

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## A.1 INTRODUCTION

Chemical Lime Company (CLC) operates a railcar loadout facility near Bancroft, Idaho under Permit to Construct (PTC) #029-00028, issued July 6, 1999. The initial operations at the facility, permitted in November 1991, provided for the transfer of lime from trucks to storage silos and from the silos to railcars. On November 21, 1997, a modification to the PTC was issued which included the installation of temporary equipment to be used to load lime (plus 3/8 inch and minus 3/8 inch) from railcars to enclosed customer trucks whenever the need arose. In March 1999, CLC submitted an application to replace the temporary equipment for unloading railcars with permanent equipment capable of unloading railcars filled with lime or hydrate (see: *Application for a Pre-Permit Construction Approval and a Permit to Construct For a Permanent Railcar Unloading System, Chemical Lime Company, Rail Loadout Facility, Bancroft, Idaho*, March 3, 1999). On July 6, 1999, a modification to the PTC was issued to replace the temporary railcar unloading/truck loading equipment with the permanent equipment capable of handling both lime and hydrate.

Some of the permanent equipment proposed in the March 1999 PTC Application, and authorized by the July 6, 1999 modification to the PTC, was not installed. In addition, in order to provide greater flexibility in the handling of lime and hydrate, CLC plans to make several operational changes. These changes do not affect the process rate limits in the current permit.

In accordance with Section 202 of the Rules for the Control of Air Pollution in Idaho (IDAPA 58.01.01, Rules), this application is being submitted to supplement and clarify the information submitted in the March 1999 PTC Application referenced above. The initially proposed and current operations at the CLC Lime Railcar Loadout Facility are explained in Section A.2 below. As demonstrated in Section A.4, the modified operations do not result in an increase in emissions.

A PTC application form as required by Section 202 of the Rules is included at the beginning of this application. This document also contains all information required by a PTC application pursuant to Section 202.01.a and 202.02, and as required by the application form.

## **A.2 CLARIFICATION OF OPERATIONS**

### **A.2.1 *Currently Permitted Processes***

The currently permitted processes at CLC's rail loadout facility include: (a) unloading lime from trucks to a silo and then to railcars, (b) unloading lime and hydrate from railcars to enclosed customer trucks; and (c) pneumatically transferring lime (minus 3/8 inch) from railcars to trucks. Currently permitted throughput (lime and/or hydrate) limits for the facility are 27,740 tons per month and 332,880 tons per any consecutive 12-month period. The currently permitted processes, as presented in the March 1999 PTC Application, are described below.

#### **A.2.1.1 Truck Unloading**

A process flow diagram of the truck unloading/railcar loading system as presented in the March 1999 PTC Application is presented in Figure A.3.1. No changes to this system are proposed. Thus, the process described below represents existing operations.

The truck unloading/railcar loading process flow is indicated by solid lines with black arrowheads in Figure A.3.1. The process begins with trucks unloading lime, within a truck unloading bay, to a 40-ton bin which feeds a screw conveyor (SC-1). The screw conveyor then transfers the lime to a bucket elevator (BE-956) which feeds a 150-ton silo via two diverter chutes. Railcar loading commences with the discharge of lime from the silo to a screw conveyor (SC-2) which feeds a bucket elevator (BE-965) or with the direct discharge of lime from the diverter chute to BE-965. The bucket elevator discharges to a screw conveyor (SC-3) which is equipped with a loadout spout. The lime is loaded to the railcar via the loadout spout at a maximum process rate of 100 tph (note this process rate was incorrectly stated as 35 tph in the March 1999 PTC application). Emissions of regulated pollutants from this process are limited to PM and PM<sub>10</sub> which are controlled by enclosed transfer equipment and two dust collectors (DC-953 and DC-957) as shown in Figure A.3.1. Consequently, there are no fugitive particulate emissions from this process. Emissions from the dust collectors are point source emissions.

#### **A.2.1.2 Railcar Unloading of Plus 3/8 Inch Lime and Hydrate**

The process flow diagram for the railcar unloading/truck loading system for lime and hydrate, as proposed in the March 1999 PTC Application referenced above and as permitted by the current PTC, is also presented in Figure A.3.1. The railcar unloading/truck loading process flow is indicated by dashed lines with white arrow heads in the figure. Some of the equipment for this system was not installed as explained further below.

As proposed, material from railcars would have been received by a screw conveyor (SC-T) located beneath the railcar via a pneumatic boot lift seal. The screw conveyor would have then fed an enclosed belt conveyor (BC-1), which in turn, would have fed directly to a bucket elevator (BE-956). The bucket elevator would then have fed material via a diverter chute either to a 150-ton bin via a second diverter chute, or to a truck loadout spout (SPT-1) located inside the truck unloading bay. Finally, a screw conveyor (SC-4) would have directed material from the 150-ton bin, as-needed, back through bucket elevator BE-956 and to the truck loadout spout via the diverter chute. The railcar

unloading system would have been capable of handling 50 tph of lime and 25 tph of hydrate. Emissions of regulated pollutants from this process would have been limited to PM and PM<sub>10</sub> which would have been controlled by enclosed transfer equipment and the two existing dust collectors (DC-953 and DC-957) as shown in Figure A.3.1. Consequently, there would have been no fugitive particulate emissions from this process.

#### **A.2.1.3 Pneumatic Railcar Unloading of Minus 3/8 Inch Lime**

The process flow diagram for the transferring of minus 3/8 inch lime as currently permitted (i.e., as presented in the March 1999 PTC Application) and operated is shown in Figure A.3.2. Pneumatic lines are used to transfer lime directly from railcars to trucks by pressurizing the railcars resulting in a maximum transfer rate of 20 tph. A truck-mounted 15 psi positive displacement blower powered by the truck is used to pressurize the railcar and transfer the product to the truck. As a result, a separate blower engine is not used in the process. Emissions of regulated pollutants from this process are limited to PM and PM<sub>10</sub> which are controlled by enclosed transfer equipment and a baghouse filter bag placed on the end of the truck vent air pipe. Consequently, there are no sources of fugitive particulate matter from this process. The only point source of emissions is the controlled particulates from the truck vent air pipe.

### **A.2.2 Clarification of Current Equipment and Operations**

#### **A.2.2.1 Railcar Unloading of Lime**

As stated above, some of the permanent equipment that was to be used for belly-dump unloading of lime and hydrate from railcars and transfer of the product to trucks was not installed. Specifically, Screw Conveyor SC-4 located beneath the 150-ton Bin was not installed (see Figure A.3.1). This screw conveyor would have allowed material unloaded from the railcars to be temporarily stored in the 150-ton Bin and then redirected through Bucket Elevator BE-956, through the first diverter chute and then loaded to trucks. Without it, material unloaded from the railcars cannot be stored and therefore, must be loaded directly to trucks via Screw Conveyor SC-T, Belt Conveyor BC-1, Bucket Elevator BE-956 and the first diverter chute.

The current configuration, without Screw Conveyor SC-4 is shown in Figure A.3.3.

#### **A.2.2.2 Pneumatic Railcar Unloading of Hydrate**

CLC plans to modify the pneumatic railcar unloading operations by including the unloading of hydrate in addition to lime and controlling emissions with an existing baghouse rather than with a baghouse filter bag. The proposed modified pneumatic railcar unloading system is shown in Figure A.3.4. The modified equipment configuration is essentially the same as currently permitted (i.e., a truck-mounted 15 psi positive displacement blower is used to pressurize the railcar and transfer the product to the truck), except that emissions will be controlled by a rubber flex-hose connecting the top of the lime truck trailer to existing baghouse DC-953 and a rubber flex hose connecting the side vent on the truck trailer to existing baghouse DC-953. This new control configuration will replace the current control configuration which consists of a baghouse filter bag being placed on the truck trailer side vent air pipe. The modified baghouse control will provide more efficient dust control.

The modified flex-tube connections between the lime truck trailer and existing baghouse DC-953, along with the additional pneumatic transfer of hydrate, represent the only physical changes in the method of operations that will take place among the clarifications presented in this application.

### **A.2.3 Process Rates**

The Bancroft Facility is currently limited by the current PTC to a maximum lime throughput (this includes lime and hydrate) of no more than 27,740 tons per month or 332,880 ton per any 12-month consecutive period. CLC is not proposing any changes to these limits. The maximum process rates of the unloading (truck and rail) processes at the facility are listed in Table A.2.1. The truck unloading/railcar loading process cannot occur simultaneously with the railcar unloading/truck loading process because it would require concurrent use of baghouse DC-953. Consequently, the process rates listed in Table A.2.1 for each unloading process represent worst-case rates for each process and maximum facility wide process rates.

**Table A.2.1 Maximum Process Rates for the Offloading Processes**

Hourly Process Rate (tph)	Daily Process Rate (tpd)	Annual Process Rate (tpy)
<i>Truck Unloading / Railcar Loading (Lime Only)</i>		
100	2,400	332,880 *
<i>Railcar Unloading / Truck Loading (Lime Only)</i>		
Lime		
50	1,200	332,880 *
<i>Pneumatic Railcar Unloading / Truck Loading (Lime and Hydrate)</i>		
20	480	175,200

\* Current 12-month rolling limit.

Note: The process rates for each offloading process are based on continuous operation up to the current permitted limit. The process rates listed for each unloading process thus represent worst-case rates for each process and maximum facility wide process rates.

### **A.3 PROCESS FLOW DIAGRAMS**

The following process flow diagrams are presented in the subsequent pages.

- Figure A.3.1 Process flow diagram of the current truck unloading (process flow indicated by solid black arrows) and currently permitted but never fully built railcar unloading systems (process flow indicated by white arrows).
- Figure A.3.2 Process flow diagram of the currently permitted pneumatic railcar unloading system for minus 3/8 inch lime.
- Figure A.3.3 Process flow diagram of the current truck unloading system and railcar unloading system for lime only.
- Figure A.3.4 Process flow diagram of the proposed modified pneumatic railcar unloading system for hydrate and lime.

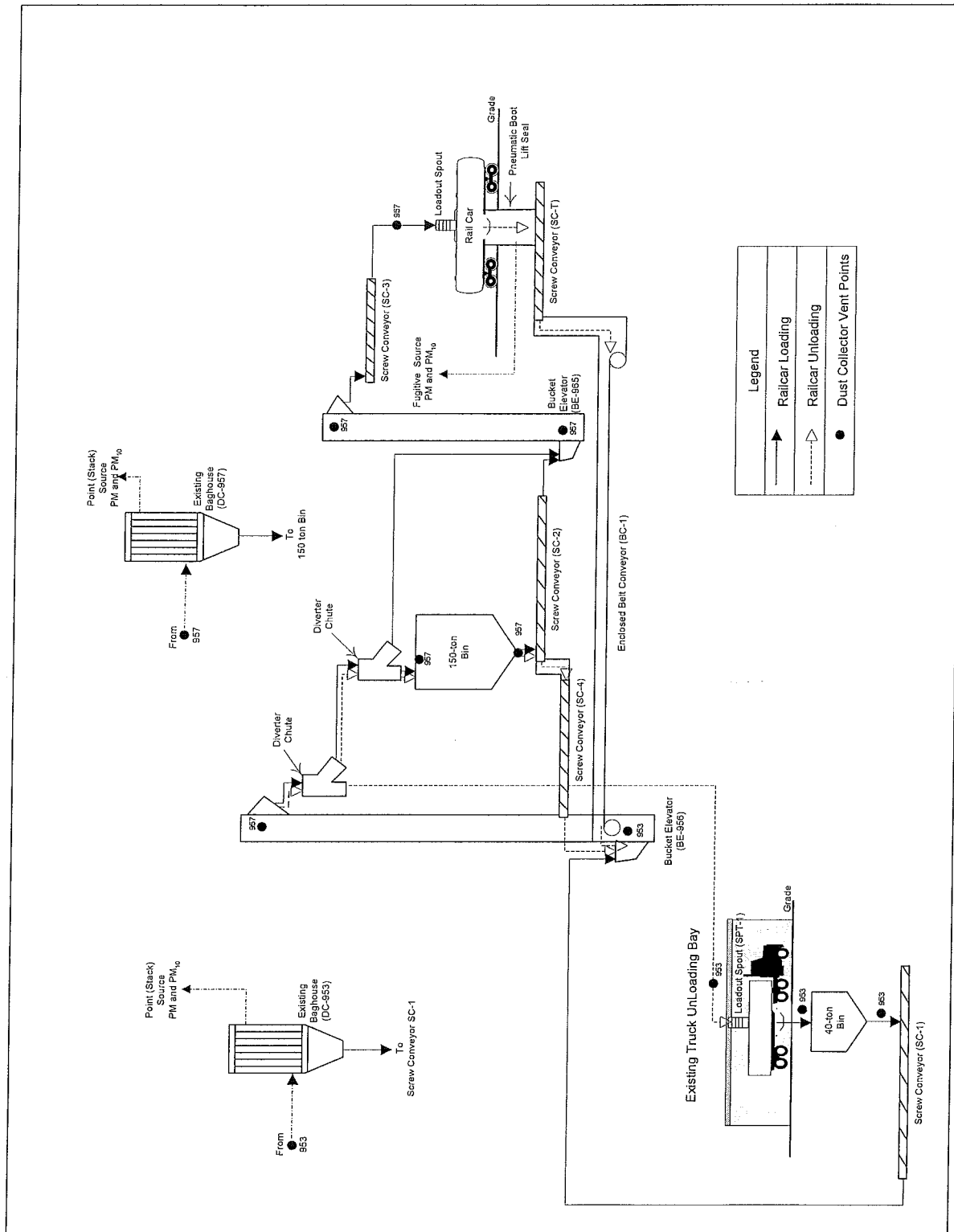


Figure A.3.1 Process flow diagram of the current truck lime unloading and currently permitted railcar lime and hydrate unloading systems.



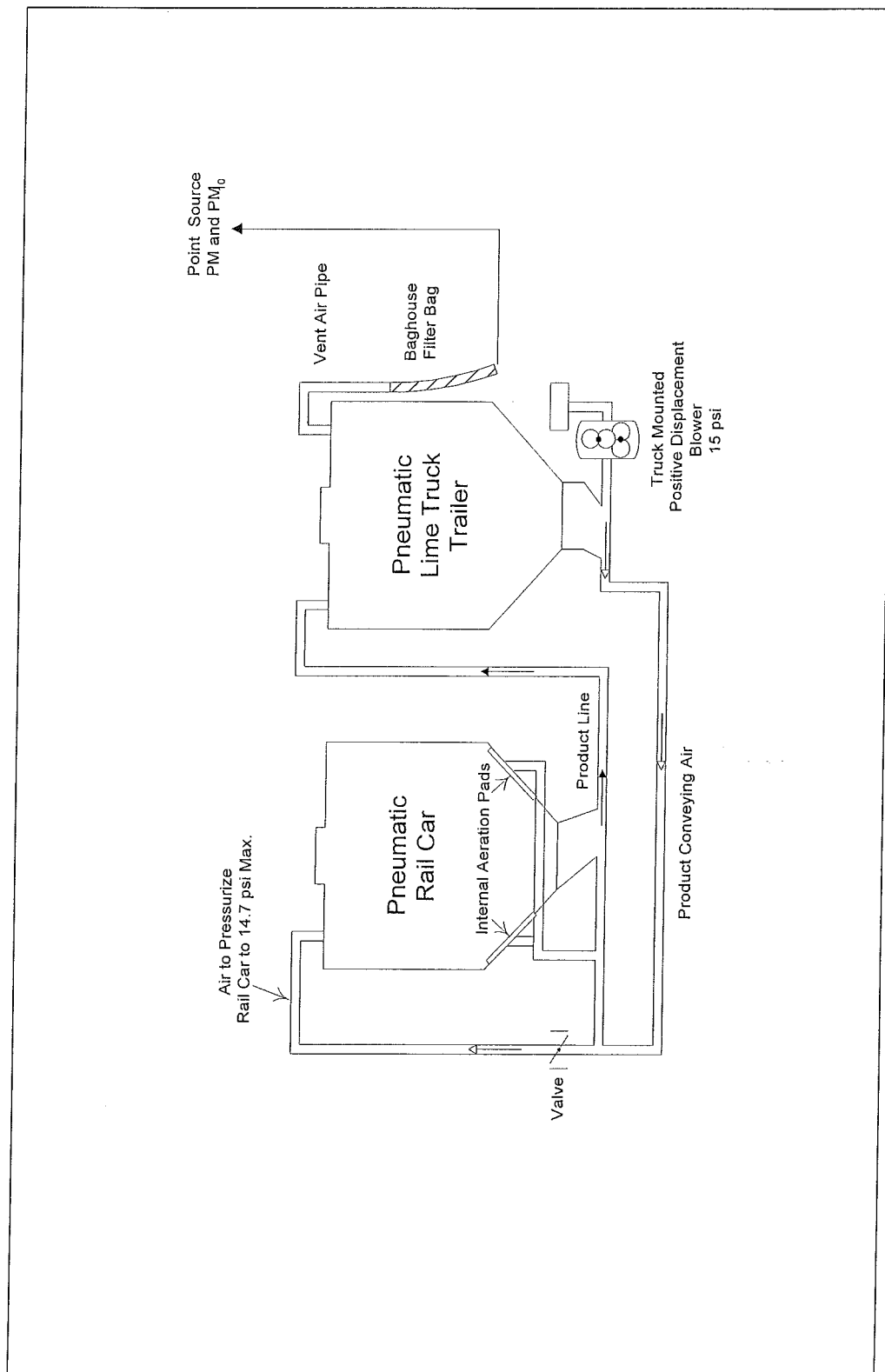


Figure A.3.2 Process flow diagram of the currently permitted pneumatic railcar unloading system for minus 3/8 inch lime.

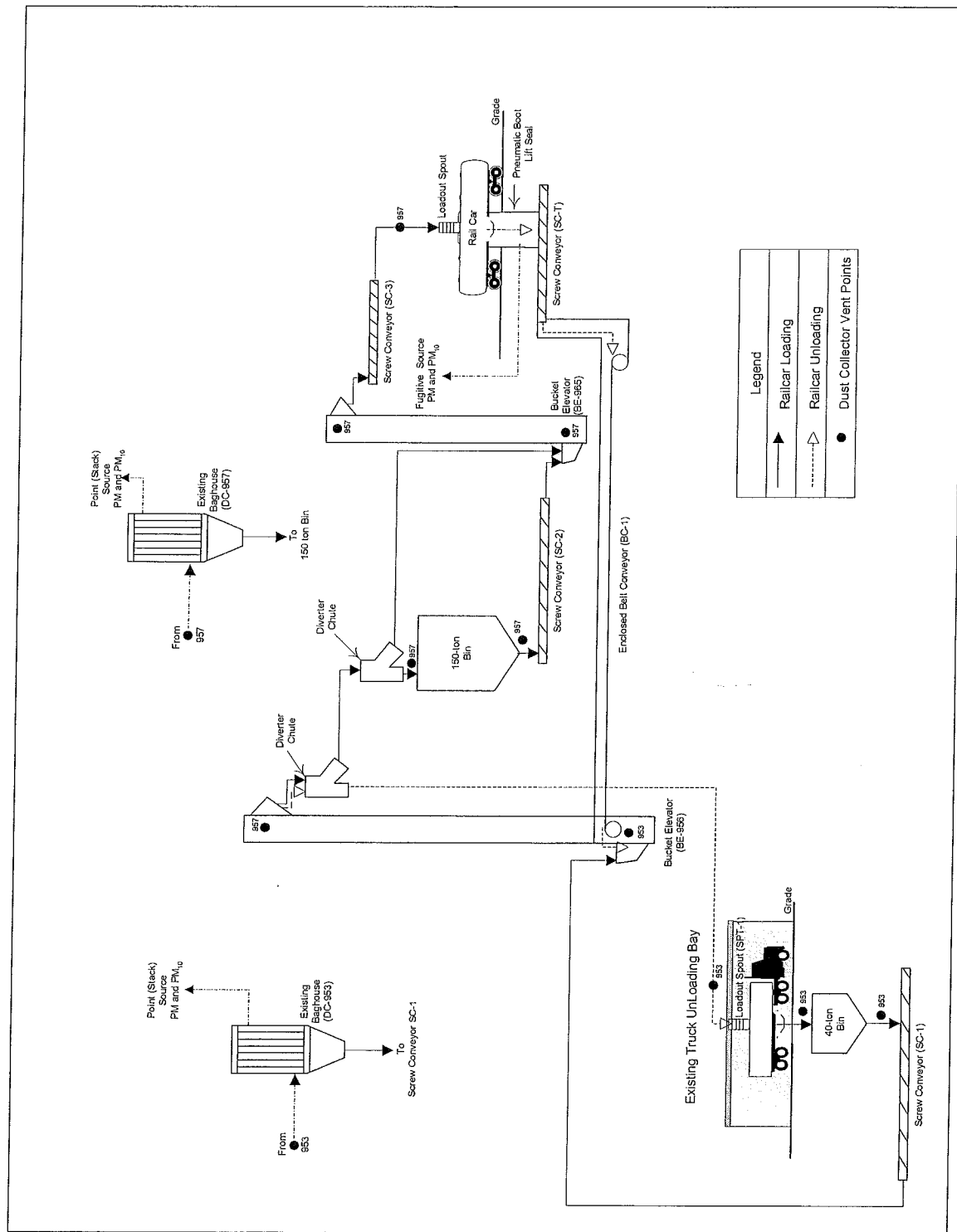


Figure A.3.3 Process flow diagram of the current truck lime unloading and railcar lime unloading systems.

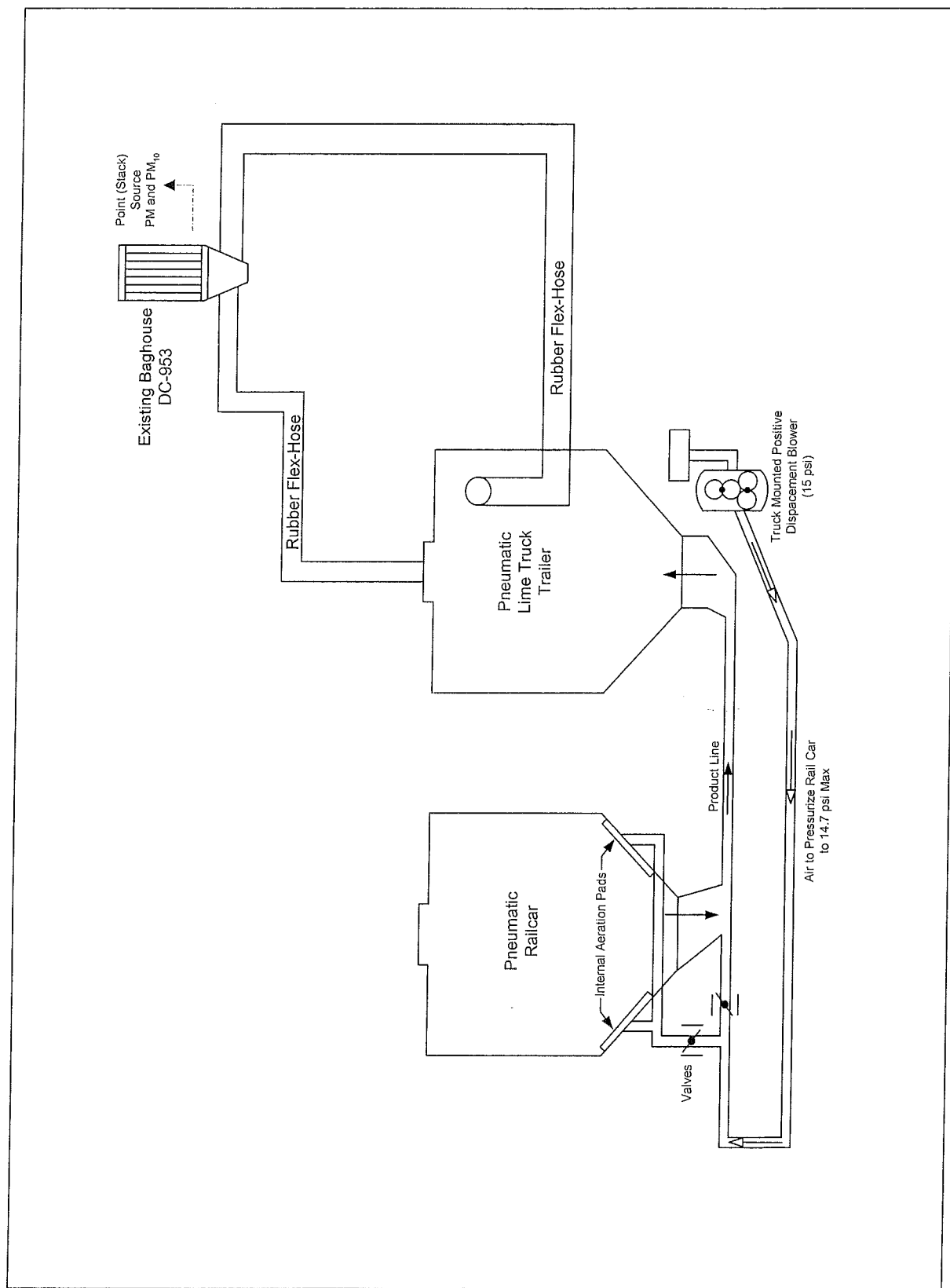


Figure A.3.4 Process flow diagram of the proposed modified pneumatic railcar unloading system for unloading hydrate and lime.

## **A.4 EMISSIONS FROM PROPOSED CHANGE**

As stated above, the proposed modified pneumatic transfer operations to include the transfer of hydrate and to add flex-tube connections between the truck trailer and existing baghouse DC-953 to replace the baghouse filter bag on the truck side vent air pipe, represent the only physical changes in the method of operations that will take place among the clarifications presented in this application. Baghouse DC-953 currently controls emissions from the truck and railcar lime unloading operations (see Figure A.3.3). The particulate emissions from this baghouse are currently limited to 0.035 lbs/hr.

To demonstrate that the hourly emission limit of baghouse DC-953 will be maintained when controlling the pneumatic transfer of hydrate or lime, PM emissions were calculated based on AP-42, Section 11.12, Concrete Batching, Table 11.12-2 (06/06) which provides a controlled PM emission factor for the pneumatic transfer of cement to an elevated storage silo. The factor given is 0.00099 lbs/ton of product. This emission factor should represent worst case conditions for the Bancroft Facility since cement is a much finer material than hydrate or lime.

Based on a maximum hourly pneumatic transfer process rate of 20 tons/hr, hourly controlled PM emissions from the pneumatic transfer of the hydrate or lime are:

$$0.00099 \text{ lbs/ton} \times 20 \text{ tons/hr} = 0.0198 \text{ lbs/hr}$$

The above calculations demonstrate that the current limit for baghouse DC-953 of 0.035 lbs/hr will be maintained when the baghouse is used to control emissions from the pneumatic unloading process.

## **A.5 APPLICABLE REQUIREMENTS**

The proposed modification will not trigger any new applicable requirements or require any changes to monitoring and recordkeeping requirements in the current PTC.